

We claim:

1. A computer-implemented method performable within a transactional message system comprising:
  - receiving a message in a queue;
  - 5 for each of at least one trigger associated with the queue, checking whether any of at least one rule associated with the trigger has a condition thereof satisfied by the message; and,
    - upon determining that any of the at least one rule associated with the trigger has a condition thereof satisfied by the message, for each rule having a condition satisfied by 10 the message, performing an action associated with the rule.
2. The method of claim 1, wherein the at least one trigger comprises a plurality of ordered triggers.
3. The method of claim 1, wherein performing an action associated with the rule comprises activating each of at least one module associated with the rule.
- 15 4. The method of claim 3, wherein each module comprises one of: a software component; and, an executable program file.
5. The method of claim 3, wherein activating each of at least one module associated with the rule comprises passing the message to the module.

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6. The method of claim 1, where each trigger has an enabled state and a disabled state, such that the condition of each of the at least one rule of a trigger is checked for satisfaction by the message received in the queue only when the trigger is in the enabled state.

5    7. The method of claim 1, wherein each of at least one of the rules comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition of the rule causes checking for satisfaction of the condition of each of any non-checked rules to stop.

10    8. The method of claim 1, wherein each of at least one of the rules comprises a destructive rule, such that satisfaction by the message received in the queue of the condition of the rule removes the message from the queue.

9. The method of claim 1, wherein checking is performed in a serial manner.

10. The method of claim 1, wherein checking is performed in a concurrent manner.

11. A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:

15    receiving a message in a queue;

      checking whether a condition of a rule associated with a trigger associated with the queue is satisfied by the message; and,

upon determining that the condition of the rule is satisfied by the message, performing an action associated with the rule.

12. The medium of claim 11, wherein performing an action associated with the rule comprises activating each of at least one module associated with the rule.

5    13. The medium of claim 12, wherein each module comprises one of: a software component; and, an executable program file.

14. The medium of claim 12, wherein activating each of at least one module associated with the rule comprises passing the message to the module.

10    15. The medium of claim 11, where the trigger has an enabled state and a disabled state, such that the condition of each of the rule associated with the trigger is checked for satisfaction by the message received in the queue only when the trigger is in the enabled state.

15    16. The medium of claim 11, wherein the rule comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition of the rule causes checking for satisfaction of the condition of any non-checked rules to stop.

17. The medium of claim 11, wherein the rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition of the rule removes the message from the queue.

18. The medium of claim 11, wherein checking is performed in a serial manner.

19. The medium of claim 11, wherein checking is performed in a concurrent manner.

20. A transactional message system comprising:

at least one queue, each queue capable of receiving a plurality of messages;

5        a trigger store of at least one trigger, each trigger associated with a queue, having a state selected from one of an enabled state and a disabled state, and having associated therewith at least one rule, each rule having a condition and an action; and,

a trigger service designed to, upon receipt of a message in a queue, check the condition of each rule of each trigger associated with the queue that is in the enabled state  
10      for satisfaction by the message, such that the action of the rule is performed upon satisfaction of the condition of the rule by the message.

21. The system of claim 20, wherein the trigger store corresponds to a particular computer and references each of the at least one trigger within a trigger database.

22. The system of claim 20, wherein each of the at least one queue comprises data stored

15      on a computer-readable medium.

23. The system of claim 20, wherein each of the at least one trigger store comprises data stored on a computer-readable medium.

24. The system of claim 20, wherein the trigger service comprises a computer program executed by a processor from a computer-readable medium.

25. The system of claim 20, further comprising a trigger manager designed to provide for creating, editing and deleting triggers in a visual, non-programming manner.

5     26. The system of claim 20, wherein the trigger store of the at least one trigger comprises a trigger store of a plurality of ordered triggers.

27. The system of claim 20, wherein the trigger service is further designed to perform the action associated with a rule by activating each of at least one module associated with the rule.

10    28. The system of claim 27, further comprising at least one module, such that the at least one module associated with the rule as activated by the trigger service are selected from the at least one module.

29. The system of claim 28, wherein each module comprises one of: a software component, and an executable program file.

15    30. The system of claim 28, wherein the trigger service is further designed to activate each of the at least one module associated with the rule such that the message to the module is passed to the module.

31. The system of claim 20, wherein each of at least one of the rules comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition of the rule causes the trigger service to stop checking for satisfaction of the condition of each of any non-checked rules.

5      32. The system of claim 20, wherein each of at least one of the rules comprises a destructive rule, such that satisfaction by the message received in the queue of the condition of the rule removes the message from the queue.

33. The system of claim 20, wherein checking is performed in a serial manner.

34. The system of claim 20, wherein checking is performed in a concurrent manner.

10     35. The system of claim 20, wherein the system comprises at least one computer.

36. A computer for inclusion into a transactional message system comprising:  
at least one queue, each queue capable of receiving a plurality of messages;  
a trigger store of at least one trigger, each trigger associated with a queue, having a state selected from one of an enabled state and a disabled state, and having associated therewith at least one rule, each rule having a condition and an action; and,  
15     means for, upon receipt of a message in a queue, checking the condition of each rule of each trigger associated with the queue that is in the enabled state for satisfaction by the message, and performing the action of the rule upon satisfaction of the condition of the rule by the message.

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37. The computer of claim 36, wherein the trigger store references each of the at least one trigger within a trigger database.

38. The computer of claim 36, further comprising means for creating, editing and deleting triggers in a visual, non-programming manner.

5     39. The computer of claim 36, wherein the trigger store of the at least one trigger comprises a trigger store of a plurality of ordered triggers.

40. The computer of claim 36, wherein the means for checking and performing is further for performing the action associated with a rule by activating each of at least one module associated with the rule.

10    41. The computer of claim 40, further comprising at least one module, such that the at least one module associated with the rule service are selected from the at least one module.

42. The computer of claim 40, wherein each module comprises one of: a software component, and an executable program file.

15    43. The computer of claim 40, wherein the means for checking and performing is further for activating each of the at least one module associated with the rule such that the message to the module is passed to the module.

44. The computer of claim 36, wherein each of at least one of the rules comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition of the rule causes the means for checking and performing to stop checking for satisfaction of the condition of each of any non-checked rules.

5      45. The computer of claim 36, wherein each of at least one of the rules comprises a destructive rule, such that satisfaction by the message received in the queue of the condition of the rule removes the message from the queue.

46. The computer of claim 36, wherein checking is performed in a serial manner.

47. The computer of claim 36, wherein checking is performed in a concurrent manner.

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